

AMENDMENTS TO THE CLAIMS

This listing will replace all prior versions, and listings, of claims in the application:

1. (Currently amended) A fluid bed granulation process of a predetermined substance comprising the steps of:

forming, through a fluidification air flow of a predetermined flow rate, a fluid bed of granules of the substance to be granulated, fed to it in form of seeds;

feeding said fluid bed with a continuous flow of a growth substance;

inducing, in at least part of said fluidification air flow, the formation of a substantially vortex-shaped circulatory movement of the granules of the substance to be granulated in said fluid bed; and

maintaining and regulating said circulatory movement through said part of the fluidification air flow,

wherein said substantially vortex-shaped circulatory movement has a substantially horizontal axis, and

wherein the fluidification air flow is continuously divided throughout the bed into a plurality of fractions having respective flow rates comprised so that the flow rate of the fluidification air flow varies continuously between a minimum value flow rate, sufficient to support the fluid bed, fed at a first zone thereof, and a maximum value flow rate, fed in another zone of the same bed, so as to induce and to maintain said substantially vortex-shaped circulatory movement of the granules of said substance.

2. (Previously presented) The granulation process according to claim 1, wherein the variation in fluidification air flow rates between said first zone where the flow rate is minimum and the zone where the flow rate is maximum is step-wise.

3. (Previously presented) The granulation process according to claim 1, wherein the variation in fluidification air flow rates between said first zone where the flow rate is minimum and the zone where the flow rate is maximum is substantially gradual and continuous.

4. (Previously presented) The granulation process according to claim 1, wherein said granules of the substance to be granulated are made to flow with a substantially helical movement from one end of the fluid bed where a flow of seeds of said substance is continuously fed, to an opposite end of the fluid bed where a flow of finished granulated product is continuously discharged.

5. (Previously presented) The granulation process according to claim 1, wherein finished granulated product obtained in said fluid bed is continuously discharged from a bottom of said fluid bed by gravity.

6-10. (Cancelled)